

ABSTRACT

A mechanism that allows sharing of an existing infrastructure for access to public or private IP networks, such as the public Internet or private LANs is provided. Specifically, infrastructure owners lease the infrastructure resources on a short-term basis to different Internet Service Providers (ISPs). An ISP uses these resources to provide Internet services to subscribing customers or users. The ISP controls all aspects of the Internet service provided to the subscriber, including billing, bandwidth management, and e-mail. The ISP also ensures privacy for the subscriber by means of encryption. Leasing network resources from an existing network infrastructure frees the ISP from building an expensive access infrastructure itself while the infrastructure owner is given an opportunity to generate additional revenue from infrastructure. Importantly, neither the user, nor the ISP need to trust the access station (i.e.: the access station is untrusted) through which the access to the IP network is accomplished.